

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A microwave frequency converter comprising:

an RF amplifier ~~capable of changing a~~whose gain is adjustable to any value within a range from an amplified state to an attenuated state;

and a control circuit ~~for applying that~~applies a gain control voltage to the RF amplifier;

wherein the control circuit controls the gain control voltage ~~to be applied to the RF amplifier so as to cause~~such that the gain of the RF amplifier ~~to be~~is in the attenuated state during a period of time including a time during which a transmission section performs oscillation and times therebefore and thereafter, and to be in the amplified state during any period of time other than the period of time; and

further wherein the RF amplifier does not perform attenuation when its gain value is associated with an amplified state.

2. (Previously Presented) The microwave frequency converter according to claim 1, wherein the control circuit continuously changes the gain control voltage to continuously change the gain of the RF amplifier from a predetermined gain value in the amplified state to a predetermined gain value in the attenuated state, or from a predetermined gain value in the attenuated state to a predetermined gain value in the amplified state.

3. (Previously Presented) The microwave frequency converter according to claim 1, wherein the control circuit instantaneously changes the gain control voltage to instantaneously change the gain of the RF amplifier from a predetermined gain value in the amplified state to a

predetermined gain value in the attenuated state, or from a predetermined gain value in the attenuated state to a predetermined gain value in the amplified state.

4. (Currently Amended) The microwave frequency converter according to claim 3, wherein the RF amplifier ~~employs~~ includes a FET device or a HEMT device ~~which is operated by applying a negative voltage to a gate thereof and a positive voltage to a drain thereof, and the control circuit simultaneously switches ON/OFF a the gate voltage and a drain voltages to be applied to the gate and the drain of the device to causes~~ such that the gain of the RF amplifier ~~to be~~ is in the attenuated state when the gate voltage and the drain voltage are switched ON, and ~~to be~~ in the amplified state when the gate voltage and the drain voltage are switched OFF.

5. (New) A microwave frequency converter comprising:

an RF amplifier whose gain is adjustable to any value within a range from an amplified state to an attenuated state;

and a control circuit that applies a gain control voltage to the RF amplifier;

wherein the control circuit controls the gain control voltage such that the gain of the RF amplifier is in the attenuated state during a period of time including a time during which a transmission section performs oscillation and times therebefore and thereafter, and to be in the amplified state during any period of time other than the period of time; and

further wherein both the amplification and attenuation aspects of the amplifier gain are directly controlled by the gain control voltage.

Application No.: 10/584,414
Reply to Office Action dated April 2, 2009

Docket No.: 0757-0316PUS1

6. (New) The microwave frequency converter according to claim 5, wherein the RF amplifier is a FET.